

REMARKS

Claims 8 and 10 are pending and under consideration. Claims 1-7 were withdrawn. Claim 8 has been amended. Claim 9 has been canceled. No new matter has been added.

Claims 8-10 are rejected under 35 USC 103(a) as being unpatentable over Henle, U.S. Patent 4,266,282 in view of Kinsman, U.S. Patent 6,380,630. This rejection is respectfully traversed.

Claim 8 recites “printing electrical lines of main sides of the semiconductor chips such that the lines run from contact points of the semiconductor chips beyond lower edges of the main sides onto base sides of the semiconductor chips” and “introducing an adhesive between the main sides of the semiconductor chips and bringing together semiconductor chips in an adhesive bonding mold such that at least partial encapsulation of the chip composite is produced,”

The Examiner maintains that Henle discloses printing electrical lines on main sides of the semiconductor chips such that the lines run from contact points of the semiconductor chips beyond lower edges of the main sides onto base sides of the semiconductor chips (citing Fig. 1 and col. 3, lines 36-47). Applicants respectfully disagree.

Fig. 1 and col. 3, lines 36-47 of Henle is a superficial teaching of terminals 12 to be connected to the substrate 11 by conductors 13. Henle does not specifically teach that the terminals 12 run onto base sides of the semiconductor chips as recited in claim 8. The Examiner infers this from Fig. 1, but Henle does not specifically discuss this feature. In fact, the disclosure actually indicates that the terminals 12 are only on the portion of the semiconductor and the electrical conductors 13 are on the substrate. Thus, it not possible for the terminals 12 to “run from contact points of the semiconductor chips beyond lower edges of the main sides onto base sides of the semiconductor chips.”

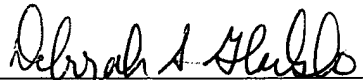
The Examiner admits that Henle does not disclose adhesively bonding semiconductor chips together. Therefore, Henle also cannot disclose partial encapsulation of the chip composite by virtue of an adhesive. The Examiner relies on Kinsman as teaching these features.

Kinsman discloses, at col. 2, lines 31 to 64, an adhesive bonding as an intervening securing element 13 which may include conductive and non-conductive epoxies, a thin layer polymeric film having an adhesive coating on its upper and lower surfaces or other adhesive materials. The securing element 13, i.e., the adhesive bonds a first and a second semiconductor device together, but not in such a way that the securing element 13 at least partially encapsulates the semiconductor devices. In fact, Kinsman does not disclose any encapsulation of the disclosed semiconductor device module 10. Thus, the combination of Henle and Kinsman fails to teach or suggest the features of claim 8.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 543822002200.

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Respectfully submitted,

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